



*Team members from Alliance Municipal Electric System, Alliance, Neb., and Nebraska Municipal Power Pool, conduct energy audit at Burlington-Northern-Santa Fe in mid-July. Western Energy Services Specialist **Peggy Plate** helped coordinate the audit to improve BNSF's efficiency and cost savings. (Photo by **Peggy Plate**)*

## **Energy Services specialist helps improve customer efficiency**

**E**nergy Services Specialist **Peggy Plate** of Western's Energy Services Office in Loveland spends her time serving Western customers by helping them meet their customers' energy services needs while enhancing their system services and improving efficiency.

One example of Plate's endeavors was an energy audit conducted in partnership with Alliance Municipal Electric System, Alliance, Neb., and Nebraska Municipal Power Pool for AMES customer Burlington Northern - Santa Fe Railroad in mid-July.

At the request of BNSF, Alliance Electric Superintendent Robert Moore assembled an audit team that spent two days gathering efficiency data on lighting and motors at the main BNSF Maintenance Facility.

"We can't audit the world, but when time and manpower allow, we are proud to participate in such projects," Plate said.

"Our customers call on us for the expertise, knowledge and technology they need to support their customer base. It's all part of an integrated resource program, where we often team with other organizations to improve customer efficiency and satisfaction. Audits such as the one conducted with AMES lead to

greater customer efficiency and cost savings," she added.

Using Motor Master Plus software, Washington State University Cooperative Extension Energy Program Senior Engineer Johnny Douglass analyzed motor and motor system efficiency, helping BNSF identify inefficient or oversized motors and computed the energy and demand savings of replacing existing equipment with energy-efficient alternatives.

Douglass issued a report for BNSF finding that they could benefit from a motor management program to increase reliability and decrease the costs of energy, production and maintenance. According to the report, "BNSF could benefit from information to guide decisions on motor repair vs. replacement and the cost-effective level of motor efficiency to purchase."

The motor efficiency audit team also used infrared cameras to determine hot spots in breaker panels for BNSF. Plate pointed out that 60 percent of the facility's demand was for lighting and that a retrofit could significantly reduce lighting energy demand and costs.